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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,020	11/16/2001	Larry W. Hinderks	3593-23	7679

7590 09/21/2005

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EXAMINER	
SHAND, ROBERTA A	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,020	HINDERKS ET AL.	
	Examiner	Art Unit	
	Roberta A. Shand	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-15,17-23,28,29,31-34,36 and 37* is/are rejected.

7)☒ Claim(s) *7,16,24-27,30 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/3/02,2/28/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 8-15, 17-23, 28, 29, 31-34, 36 and 37 rejected under 35 U.S.C. 102(e) as being anticipated by Allan (U.S. 6788696 B2).

3. Regarding claims 1 and 8, Allan teaches (fig. 1) a method of providing IP multicast content to one or more recipients (22a, 22b 22c) connected to a legacy ATM DSL network (18), comprising: receiving an IP multicast signal from a multicast program source (col. 1, lines 23-53); replicating predetermined data portions of the received IP multicast content (col. 1, lines 54-58 and col. 5, lines 58-62); converting an IP data stream into a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully); providing the converted data stream to an ATM network switch for transmission to one or more recipients via one or more virtual circuits (col. 5, lines 25-57).

4. Regarding claim 2, Allan teaches (col. 5, lines 25-62) the received IP multicast signal comprises a plurality of IP multicast content channels and the replicating step includes replicating one or more content channel.

5. Regarding claim 3, Allan teaches (col. 6, lines 33-50) responding to an IGMP join request to provide and/or replicate one or more predetermined data portions of the received IP multicast content.

6. Regarding claim 4, Allan teaches (col. 6, lines 33-50) responding to an IGMP leave request to provide and/or replicate one or more predetermined data portions of the received IP multicast content.

7. Regarding claim 5, Allan teaches (col. 5, lines 25-62 and col. 6, lines 33-50) the IP multicast signal comprises multiple multicast content channels and predetermined data portions comprise data packets corresponding to a particular IP multicast content channel and the step of replicating is performed in response to establishment of an ATM virtual circuit upon receipt of an IGMP join request.

8. Regarding claim 9, Allan teaches (fig. 1) an IP ATM multicast apparatus, comprising: a first data signal interface that receives IP multicast content data from an IP multicast content source (col. 1, lines 23-53); a second data signal interface that provides ATM cells to an ATM switch; a programmable processor programmed to convert received IP multicast content data into

a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully).

9. Regarding claims 10 and 19, Allan teaches (col. 1, lines 33-35) a keyboard data input device connected to the processor and an output display service. Allan explains that the CPE is a personal computer, which contains a keyboard and an output display, connected to a processor.

10. Regarding claim 11, Allan teaches (col. 1, lines 33-35) a memory device connected to the processor for storing data and programming instructions. Allan explains that the CPE is a personal computer, which contains a memory device connected to a processor.

11. Regarding claims 12, 17 and 20 Allan teaches (col. 1, lines 36-45) the processor is connected to an Ethernet type communications bus and the first data signal interface comprises an Ethernet (LAN) network interface device for providing IP multicast content data to the processor.

12. Regarding claim 13, Allan teaches (col. 1, lines 36-45) the processor is connected to an Ethernet type communications bus and the second data signal interface comprises an Ethernet

(LAN) to ATM network interface device for providing ATM multicast content data cells from the processor to the ATM switch.

13. Regarding claim 14, Allan teaches (fig. 1) an IP ATM multicast inserter apparatus, comprising: a first data signal interface that receives IP multicast content data from an IP multicast content source (col. 1, lines 23-53); a second data signal interface that sends and receives ATM cells to or from one or more ATM virtual circuits via an ATM switch and a DSLAM; a third data signal interface that interfaces ATM data cells to a network router (fig. 1); a programmable processor programmed to convert received IP multicast content data into a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully).

14. Regarding claim 15, Allan teaches (col. 1, lines 54-58 and col. 5, lines 58-62) replicating predetermined data portions of received IP multicast content.

15. Regarding claims 18 and 23, Allan teaches (fig. 1 and col. 1, lines 23-53) an apparatus for providing IP multicast content to a conventional ATM switch, comprising: a programmable computer processor system having an internal digital data bus and including an interface for receiving an IP multicast content data stream from the receiver and an interface for providing

ATM data cells to an ATM switch, the system programmed to convert a received IP multicast content data stream into a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully), wherein the apparatus (SG, 14) acts as a bridge between IP communications and ATM communications (col. 5, lines 14-43).

16. Regarding claim 21, as for an ATM network interface card, it is inherent in Allan's system since teaches communications between IP and ATM that an ATM NIC is used.

17. Regarding claim 22, Allan teaches (col. 5, lines 44-56 and col. 6, lines 5-19) using satellites to communicate data from CPE to IP.

18. Regarding claims 28 and 32, Allan teaches (fig. 1 and col. 1, lines 23-53) a method of providing IP multicast content to one or more recipients connected to an ATM network, comprising: receiving an IP multicast signal from a multicast program source at a location of a network that provides or supplements the services of an ATM DSL network (col. 1, lines 23-53); converting received the IP multicast content data into a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-

45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully); providing the data stream to the ATM switch (the access module acts as an ATM switch routing the data to the appropriate CPE)

19. Regarding claims 29 and 34, Allan teaches (col. 1, lines 46-53) providing the data stream to one or more DSLAM distribution to ATM DSL network CPE.

20. Regarding claims 31 and 36, Allan teaches (col. 1, lines 54-58 and col. 5, lines 58-62) replicating portions of the IP multicast content prior to converting (Allan teaches the copies of the multicast data being routed between the service gate way and the access module (fig. 1), which means that before they reached the service gateway or while in the service gateway the replication takes place, leading to the conclusion that the replication takes place before reaching the ATM network for conversion).

21. Regarding claims 33 and 37, Allan teaches (fig. 1 and col. 1, lines 23-53) a method of providing IP multicast content to one or more recipients connected to an ATM network, comprising: receiving an IP multicast signal from a multicast program source at a location of a network that provides or supplements the services of an ATM DSL network (col. 1, lines 23-53); converting received the IP multicast content data into a data stream conforming to ATM protocol, including performing appropriate data encapsulation and ATM adaptation layer processing for transmission of data over an ATM DSL network (Allan explains col. 1, lines 35-

45, providing Internet access through high-speed ATM access network. It is inherent in Allan's system that the proper encapsulation takes place in order to properly communicate information from IP to ATM successfully); providing the data stream to the ATM switch (the access module acts as an ATM switch routing the data to the appropriate CPE)

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allan in view DeSimone (U.S. 6138144).

24. Allan teaches (col. 5, lines 44-56) an address of the access module that supports the VCC to identify the ATM end system address of the CPE.

25. Allan does not explicitly teach IP multicasting group address.

26. DeSimone teaches (col. 2, lines 15-48) providing information indicating an IP multicasting group address associated with multicast content currently provided on a particular ATM virtual circuit. It would have been obvious to one of ordinary skill in the art to adapt this to Allan's system to save resources and avoid running out of IP addresses.

Allowable Subject Matter

27. Claims 7, 16, 24-27, 30 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Shand whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Shand
Examiner
Art Unit 2665

STEVEN NGUYEN
PRIMARY EXAMINER